



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/594,916 | 09/29/2006 | Tomohiro Yabu | 4633-0186PUS1 | 5517 |

2292 7590 06/10/2010
BIRCH STEWART KOLASCH & BIRCH
PO BOX 747
FALLS CHURCH, VA 22040-0747

| |
|----------|
| EXAMINER |
|----------|

LOFFREDO, JUSTIN E

| | |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

3744

| | |
|-------------------|---------------|
| NOTIFICATION DATE | DELIVERY MODE |
|-------------------|---------------|

06/10/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

| | | | |
|------------------------------|--------------------------------------|------------------------------------|--|
| Office Action Summary | Application No. 10/594,916 | Applicant(s) YABU ET AL. | |
| | Examiner JUSTIN LOFFREDO | Art Unit 3744 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 December 2009 and 25 January 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4,5,8-13 and 16-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4,5,8-13 and 16-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 September 2006 and 22 May 2009 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 25, 2010 has been entered. Claims 1, 4, 5, 8-13 and 16-24 are pending in the application and have been considered on the merits.

Claim Objections

2. **Claims 1, 4, 5, 8-13 and 16-24** are objected to because of the following informalities:

Consider claim 1: "a first and a second adsorbent-supported heat exchangers which are fluidly connected... and which is capable of reversing the circulation direction of refrigerant" (lines 4-6 of the claim) should be written - -a first and a second adsorbent-supported heat exchanger, which are both fluidly connected...and which are capable of reversing the circulation direction of refrigerant- -;

Consider claims 4 and 5: "an outlet opening and an inlet opening" (lines 3-4 of the claims) should be written - -another outlet opening and another inlet opening- - in order to distinguish from the outlet opening and inlet opening claimed in line 2 of the same claims;

Consider claim 10: the phrase "formed by" (line 4 of the claim) should be deleted because the claim appears to be defining the type of fan for the air exhausting and air supplying fans, not how the fans are formed; "the center of axle" (line 6 of the claim) should be written - - the center of an axle- -;

Art Unit: 3744

Consider claim 11: “one of lateral plates of the casing” (line 3 of the claim) should be written similarly to - one of two lateral plates of the casing- -; “along one of continuous lateral surfaces” (line 11 of the claim) should be written - along one continuous lateral surface- -; “the two heat exchange chambers and which” (lines 11-12 of the claim) should be written - the two heat exchange chambers, and where the first inflow path and the first outflow path- - in order to clarify the claim; “which extend along the other of the continuous lateral surfaces” (line 14 of the claim) should be written - which extend along another continuous lateral surface- - in order to clarify the claim; “chambers and which are superimposedly arranged” (line 15 of the claim) appears to be a typographical error and should be written - chambers, where the second inflow path and the second outflow path are superimposedly arranged- -;

Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. **Claims 1, 4, 5, 8 and 9** are rejected under 35 U.S.C. 103(a) as being unpatentable over Harushige (JP Pub. No. 2003314856) in view of Lapeyre et al. (“Lapeyre”) (US Patent No. 4,424,686).

Consider claim 1. Harushige discloses a humidity control system for supplying either one of a dehumidified first air stream and a humidified second air stream to an indoor space and for discharging the other air stream to an outdoor space, wherein: the humidity control system comprises: a refrigerant circuit (70) which includes first and second adsorbent-supported heat exchangers (62) & (65), respectively, which are both fluidly connected in the refrigerant circuit

Art Unit: 3744

(70); a box-shaped casing (11) internally having space through which air is capable of passing (corresponding to the claimed air passageway) in which the heat exchangers (62) & (65) are disposed; an air supplying fan and an air exhausting fan disposed in the casing (11) (paragraph [0031]); a change mechanism (30) (corresponding to the claimed switching mechanism) capable of changing the distribution route of air in the casing (11) depending on the circulation direction of the refrigerant in the refrigerant circuit (70) so that the first air stream is passed through one of the heat exchangers (62) or (65) that is functioning as an evaporator while the second air stream is passed through the other heat exchanger that is functioning as a condenser; wherein the casing (11) has an internal space divided into a outdoor side space (40) (corresponding to the claimed first space) defined along a fan side lateral plate as a lateral plate of the casing (11), and a center space (50) and indoor side space (43) (which combine to make up the remaining second space as claimed) (Fig. 1); wherein the air supplying fan and the air exhausting fan are disposed in the first space (40) (paragraph [0031]) and the first and second heat exchangers, (62) and (65), respectively, are disposed in the second space (Fig. 1); and a compressor (71) and a four-way switching valve (73) (corresponding to the claimed reversal mechanism) which are both disposed in the second space of the casing (11) (paragraphs [0007]-[0012] & [0064-0066], Figs. 1, 2, 9a & 9b).

Harushige fails to explicitly disclose that the compressor and reversal mechanism are disposed between the air supplying fan and the air exhausting fan in the first space of the casing, where the compressor is disposed in the air passageway of the casing and downstream of the first and second heat exchangers. At the time the invention was made, however, it would have been an obvious matter of design choice to a person of ordinary skill in the art to position the

Art Unit: 3744

compressor and reversal mechanism between the air supplying fan and the air exhausting fan in the first space of the humidity control system disclosed by Harushige so that the compressor is in the air passageway of the casing and downstream of the heat exchangers because Applicant has not disclosed that doing so provides an new advantage, is used for a particular and unobvious purpose, or solves a newly stated problem. One of ordinary skill in the art, furthermore, would have expected the humidity control system disclosed by Harushige and applicant's invention to perform equally well with either the position of the compressor and reversal mechanism in the casing disclosed by Harushige or the compressor and reversal mechanism specifically disposed in the first space in the air stream and downstream of the heat exchangers as claimed by the applicant because both configurations would perform the same function of controlling the humidity of air flowing through the casing equally well.

Furthermore, Harushige discloses eliminating "dead space" in the casing, i.e. space not having any purpose or operative components contained therein, in order to miniaturize the humidity control system (paragraph [0056]), which is the same problem that Applicant intends to solve by placing the compressor and reversing mechanism in the first space of the casing. Regarding the compressor being disposed in the air passageway, Lapeyre discloses positioning a compressor within an air passageway so that an air stream flows over the compressor (see e.g. Lapeyre et al., col. 2, L 51-col. 3, L 18; claim 2, last five lines of the claim). It would have been obvious to modify the position of the compressor in the casing of the humidity control system disclosed by Harushige so that the compressor is in the air passageway as taught by Lapeyre in order to cool the compressor to help prevent overheating and to maintain effective system operation.

Art Unit: 3744

Consider claim 4. Harushige discloses that, in the casing (11), an outlet opening (14) and an inlet opening (16) are in fluid communication with the indoor space and an outlet opening (17) and an inlet opening (13) are in fluid communication with the outdoor space.

Harushige fails to specifically disclose ducts between each of the inlet and outlet openings; however it would have been an obvious mechanical expedient to one of ordinary skill in the art at the time of the invention to include ducts from the inlet and outlet openings in order to provide a guided passageway for the air to flow as is old and well known in the art. As evidenced by Kim (US Patent No. 5,911,751), an air guide duct (40) is incorporated into an air conditioning device (10) for guiding air blown by a fan (38) from an inlet (15) to an outlet (see Fig. 1 wherein the outlet is the opening including blades (42)) and into a conditioned space (col. 1, L 10-40; Fig. 1).

Consider claim 5. Harushige discloses that, in the casing (11), an outlet opening (14) and an inlet opening (16) are opened to provide direct fluid communication between the casing (11) and indoor space, and an outlet opening (17) and an inlet opening (13) are in fluid communication with outdoor space.

Harushige fails to specifically disclose ducts between the inlet and outlet openings; however it would have been an obvious mechanical expedient to one of ordinary skill in the art at the time of the invention to include ducts from the inlet and outlet openings in order to provide a guided passageway for the air to flow as is old and well known in the art. As evidenced by Kim (US Patent No. 5,911,751), an air guide duct (40) is incorporated into an air conditioning device (10) for guiding air blown by a fan (38) from an inlet (15) to an outlet (see Fig. 1 wherein the outlet is the opening including blades (42)) and into a conditioned space (col. 1, L 10-40; Fig. 1).

Art Unit: 3744

Consider claim 8. Harushige discloses that the casing (11) is shaped like a flattened box; and that the first and second heat exchangers (62) & (65), respectively, are arranged so as to allow the passage of air in a horizontal direction of the casing (11) (Figs. 1 & 2).

Consider claim 9. Harushige discloses that the casing (11) is shaped like a flattened box; and that the first and second heat exchangers (62) & (65), respectively, are arranged so as to allow the passage of air in a direction perpendicular to a horizontal direction of the casing (11) (Figs. 1 & 2).

5. **Claims 10-13** are rejected under 35 U.S.C. 103(a) as being unpatentable over Harushige and Lapeyre as applied to claim 1, and further in view of Hosoda et al. (US Patent No. 3,805,542).

Consider claim 10. Harushige discloses that the casing (11) is shaped like a flattened box (Fig. 1), and that the fans are capable of drawing in air from a lateral side of a fan casing and delivering the air forward (paragraph [0031]).

Harushige fails to disclose that the fans are multi-blade fans disposed such that the center axle of the impeller is oriented a horizontal direction of the casing. Hosoda et al. teach an air conditioning system employing a multi-blade type fan (2) having a casing (3) (col. 2, L 63-68; col. 3, L 1-5). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the fans of the humidity control system disclosed by Harushige to be multi-blade fans as taught by Hosoda et al. such that the fans are disposed so that the center axle of the impeller is oriented in a horizontal direction of the casing in order to provide a means that is old and well known in the art of air conditioning to more effectively move air between the outside

Art Unit: 3744

and the inside of an area by enabling air to flow through the inlet and outlet openings of the casing.

Consider claim 11. Harushige discloses: an air supplying opening (16) and an inside air inlet opening (17) which are in fluid communication with the indoor space and are provided in the room side panel (15) (i.e. one of lateral plates) of the casing (11) which are orthogonal to the fan side lateral plate, and an air exhausting opening (14) and an outside air inlet opening (13) which are in fluid communication with the outdoor space are provided in the outdoor side panel (12) (i.e. the other of the lateral plates); in the second space, the first heat exchanger (62) disposed above partition member (53) defining a first heat exchange chamber in which the first heat exchanger (62) is accommodated and the second heat exchanger (65) disposed below partition member (53) defining a second heat exchange chamber in which the second heat exchanger (65) is accommodated, the heat exchangers (62) and (65) being defined adjacently side by side in a direction orthogonal to the fan side lateral plate; and a flow path along the first air duct (51) between the outdoor side upper left opening (23) and the interior-of-a-room upper left opening (28) (i.e. a first inflow path) and a flow path along second air duct (52) between the outdoor side lower left opening (24) and the interior-of-a-room lower left opening (29) (i.e. a first outflow path) are provided which extend along one of continuous lateral surfaces of the two heat exchange chambers and which are superimposedly arranged in a horizontal direction of the casing (11); and a flow path along the first air duct (51) between the outdoor side upper right opening (21) and the interior-of-a-room upper right opening (26) (i.e. a second inflow path) and a flow path along the second air duct (52) between the outdoor side lower right opening (22) and the interior-of-a-room lower right opening (27) (i.e. a second outflow path) are provided which

Art Unit: 3744

extend along the other of the continuous lateral surfaces of the two heat exchange chambers and which are superimposedly arranged in a horizontal direction of the casing (11); and the outflow paths are in fluid communication with the first space through fan side communication openings (“Detailed Description” paragraphs [0007]-[0031]; Figs. 1-3, 6, 9a & 9b).

Consider claim 12. Harushige discloses: an air supplying opening (16) in fluid communication with the indoor space and an air exhausting opening (14) in fluid communication with the outdoor space are provided in the fan side lateral plate of the casing (11) and an inside air inlet opening (17) and an outside air inlet opening (13) in the second space, the first heat exchanger (62) disposed above partition member (53) defining a first heat exchange chamber in which the first heat exchanger (62) is accommodated and the second heat exchanger (65) disposed below partition member (53) defining a second heat exchange chamber in which the second heat exchanger (65) is accommodated, the heat exchangers (62) and (65) being defined adjacently side by side in a longitudinal direction of the fan side lateral plate; and between one of continuous lateral surfaces of the two heat exchange chambers and the lateral plate opposite the fan side lateral plate and a flow path along the first air duct (51) between the outdoor side upper left opening (23) and the interior-of-a-room upper left opening (28) (i.e. a first inflow path) and a flow path along second air duct (52) between the outdoor side lower left opening (24) and the interior-of-a-room lower left opening (29) (i.e. a first outflow path) are provided which extend along one of continuous lateral surfaces of the two heat exchange chambers and which are superimposedly arranged in a horizontal direction of the casing (11); and a flow path along the first air duct (51) between the outdoor side upper right opening (21) and the interior-of-a-room upper right opening (26) (i.e. a second inflow path) and a flow path along the second air duct

Art Unit: 3744

(52) between the outdoor side lower right opening (22) and the interior-of-a-room lower right opening (27) (i.e. a second outflow path) are provided which extend along the other of the continuous lateral surfaces of the two heat exchange chambers and which are superimposedly arranged in a horizontal direction of the casing (11); and the outflow paths are in fluid communication with the first space through fan side communication openings (“Detailed Description” paragraphs [0007]-[0031]; Figs. 1-3, 6, 9a & 9b).

While Harushige fails to disclose an inside air inlet opening and an outside air inlet opening being provided in a lateral plate opposite the fan side lateral plate, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide an inside air inlet opening and an outside air inlet opening in a lateral plate opposite the fan side lateral plate in order to provide an alternative and adaptable embodiment of the casing to provide humidity control.

Consider claim 13. Harushige and Hosoda et al. disclose the invention as claimed, but fail to disclose that the air supplying fan, arranged such that a fan inlet opening is provided in the lateral side of the fan casing of the air supplying fan, faces either one of the fan side communication openings; and the air exhausting fan is arranged such that a fan inlet opening, provided in the lateral side of the fan casing of the air exhausting fan, faces the other of the fan side communication openings. It has been held, however, that the mere rearrangement of parts is an obvious matter of design choice, and an ordinary skilled artisan would have found it obvious at the time of the invention to produce the following arrangement: the air supplying fan, arranged such that a fan inlet opening is provided in the lateral side of the fan casing of the air supplying fan, faces either one of the fan side communication openings; and the air exhausting fan is

Art Unit: 3744

arranged such that a fan inlet opening, provided in the lateral side of the fan casing of the air exhausting fan, faces the other of the fan side communication openings; in order to effectively supply air to the humidity control system.

6. **Claims 16-24** are rejected under 35 U.S.C. 103(a) as being unpatentable over Harushige and Lapeyre as applied to claim 1, and further in view of Maeda et al. (US Patent No. 6,644,059 B2).

Consider claim 16. Harushige discloses first (62) and second (65) heat exchangers as previously discussed having outside-air inflow surfaces (Fig. 1).

Harushige fails to disclose an outdoor filter arranged and formed along the outside-air inflow surfaces of the heat exchangers. Maeda et al. teach a humidification control apparatus having a filter (502) (i.e. an outdoor filter) arranged and formed upstream of an air flow in front of (i.e. along the outside-air inflow surface) of condenser (220) (i.e. a heat exchanger) (col.11, L 45-65; Fig. 2). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the first and second heat exchangers of the humidity control apparatus disclosed by Harushige to have filters upstream of the air flow as taught by Maeda et al. in order to prevent dust and other particulates from entering and causing harm to the system.

Additionally, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide filters after the heat exchangers (i.e. downstream of the airflow after passing through the heat exchangers) in order to provide filtration (or additional filtration in the case that a filter is also provided before the heat exchanger) to the air flow to further eliminate any dust or particulates.

Art Unit: 3744

Consider claim 17. Harushige disclose a first air duct (51) (i.e. a first passageway) in which the first heat exchanger (62) is disposed and a second air duct (52) (i.e. a second passageway) in which the second heat exchanger (65) is disposed; formed in the casing (11) ("Detailed Description" paragraphs [0007]-[[0008]; Figs. 1-3).

While Harushige and Maeda et al. fail to disclose that the outdoor filter includes a first filter part disposed in the first passageway and a second filter part disposed in the second passageway, it would have been obvious to one of ordinary skill in the art at the time of the invention to arrange the filter into two parts in the first and second passageways in order to filter dust and unwanted particulates from both heat exchangers in the humidity control system.

Consider claim 18. Harushige and Maeda et al. disclose the invention as claimed, but fail to disclose the first and second filter parts being integral with each other, or the filter extending over the outside-air inflow surfaces of both the first and second heat exchangers. It would have been obvious, however, to one of ordinary skill in the art at the time of the invention to extend the filter over the outside-air inflow surfaces of both the first and second heat exchangers in order to effectively prevent dust and particulates from entering and causing harm to the system through either the first or second heat exchangers. Furthermore, it has been held that the use of a one piece construction instead of the structure disclosed in the prior art would be a matter of obvious engineering design choice (*In re Larson*, 340 F.2d 965, 968, 144 USPQ 347, 349 (CCPA 1965)); therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to provide a filter with integral first and second filter parts in order to effectively eliminate dust and other particulates from passing through the heat exchangers while minimizing the number of parts required for system assembly.

Art Unit: 3744

Consider claim 19. Harushige discloses that in the casing (11) the first and second heat exchangers (62) & (65), respectively, are disposed adjacently to each other and the inflow surface of the first heat exchanger (62) and the inflow surface of the second heat exchanger (65) lie on the same plane, wherein the same plane is perpendicular to the fan side lateral plate (annotated Fig. 1; Fig 2).

Consider claim 20. While Harushige and Maeda et al. fail to disclose the casing having a take out opening, it would have been an obvious mechanical expedient to one of ordinary skill in the art at the time of the invention to provide a take out opening in the casing in order to allow the filter to be easily cleaned and/or replaced as needed.

Consider claim 21. Harushige and Maeda et al. disclose that the humidity control system is capable of switching operation (i.e. via switching mechanism (30) – Harushige “Detailed Description” paragraph [0008]); operable to switch between a first operation in which outside air is capable of being distributed through the first filter part and then through the first heat exchanger (62) and is thereafter supplied to the indoor space while simultaneously room air is distributed first through the second heat exchanger (65) and then through the second filter part and is thereafter discharged to the outside space; and a second operation in which outside air is distributed first through the second filter part and then through the second heat exchanger (65) and is thereafter supplied to the indoor space while simultaneously room air is distributed first through the first heat exchanger (62) and then through the first filter part and is thereafter discharged to the outdoor space (“Detailed Description”; Figs. 1-3).

Consider claim 22. Harushige and Maeda et al. disclose that humidity control system is capable of switching operation (i.e. via switching mechanism (30) – Harushige “Detailed

Art Unit: 3744

Description” paragraph [0008]); operable to switch its operation between a first operation in which outside air is distributed first through the first filter part and then through the first heat exchanger (62) and is thereafter supplied to the indoor space, then through the second heat exchanger (65), and then through the second filter part (124b) and is thereafter discharged to the outside space; and a second operation in which outside air is distributed first through the second filter part and then through the second heat exchanger (65) and is thereafter supplied to the indoor space, then through the first heat exchanger (62), and then through the first filter part and is thereafter discharged to the outdoor space (“Detailed Description”; Figs. 1-3).

While Harushige and Maeda et al. fail to disclose an indoor filter which is disposed in a passageway, where in the first operation room air is distributed first through the indoor filter, or where in the second operation room air is distributed first through the indoor filter, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide an indoor filter in the passageway in order to prevent dust and particulates in the room air from passing through and possibly causing harm to the humidity control system.

Consider claim 23. Harushige discloses a first air duct (51) (i.e. a first passageway) in which the first heat exchanger (62) is disposed, a second air duct (52) (i.e. a second passageway) in which the second heat exchanger (65) is disposed, And spaces (41), (42), (43), (44) and (45) (i.e. room-air supplying passageways) formed in the casing (11) (“Detailed Description” paragraphs [0007]-[0008]; Figs. 1-3).

Harushige and Maeda et al. fail to disclose an indoor filter disposed in the room-air supplying passageway(s); however it would have been obvious to one of ordinary skill in the art at the time of the invention to provide an indoor filter in the room-air supplying passageway in

Art Unit: 3744

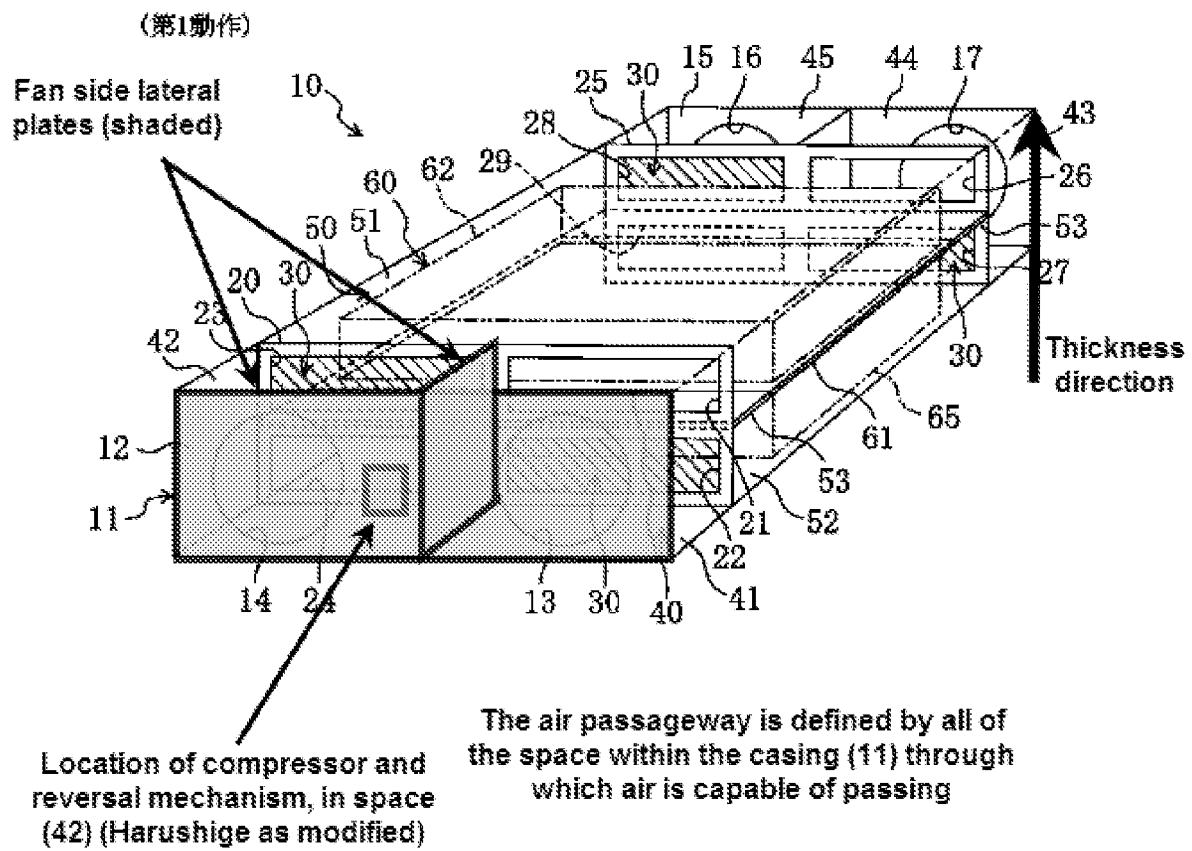
order to prevent dust and particulates in the room air from passing through and possibly causing harm to the humidity control system.

Consider claim 24. Harushige discloses a first air duct (51) (i.e. a first passageway) in which the first heat exchanger (62) is disposed and a second air duct (52) (i.e. a second passageway) in which the second heat exchanger (65) is disposed being in the casing (11); a suction opening (16) which faces the indoor space in fluid connection with chamber room (45) (i.e. an air passageway) located nearer to the indoor space than the first (51) and second (52) passageways in the casing (11) (“Detailed Description” paragraphs [0007], [0008] & [0032]; Figs. 1-3).

Harushige and Maeda et al. fail to disclose an indoor filter disposed in the vicinity of an opening part of the suction opening; however it would have been obvious to one of ordinary skill in the art at the time of the invention to provide an indoor filter in the vicinity of an opening part of the suction opening in order to prevent dust and particulates in the air flow from passing through and possibly causing harm to the humidity control system.

Art Unit: 3744

【図1】



Response to Arguments

7. The following is in response to the applicant's arguments and remarks filed December 11, 2009:

8. Regarding the applicant's traversal of the objection to the drawings because the drawings do illustrate a switching mechanism as claimed, the examiner agrees and withdraws this objection.

9. The applicant's amendment to the claims has overcome the rejection of claims 8-13 under 35 USC 112, Second Paragraph.

10. Applicant's arguments with respect to claim 1 discussing the Manz reference have been considered but are moot in view of the new ground(s) of rejection in which the Manz reference is no longer applied.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JUSTIN LOFFREDO whose telephone number is (571) 270-7114. The examiner can normally be reached on M - F 7:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler and Frantz Jules can be reached on (571) 272-4834 and (571) 272-6681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3744

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Cheryl J. Tyler/
Supervisory Patent Examiner, Art Unit 3744

/Justin Loffredo/
June 4, 2010